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(FILE 'HOME' ENTERED AT 16:52:30 ON 28 FEB 2002)

FILE 'BIOSIS, EMBASE, MEDLINE, CAPLUS, CANCERLIT' ENTERED AT 16:53:39 ON
28 FEB 2002

L1 243 S HCV IRES
 E YAMADA OSAMU/AU
L2 563 S E3
 E YOSHIDA HIROSHI/AU
L3 2162 S E3
 E ZHANG JING/AU
L4 837 S E3
L5 3554 S L2 OR L3 OR L4
L6 1 S L1 AND L5

FILE 'CONFSCI' ENTERED AT 16:59:03 ON 28 FEB 2002

L7 0 S L6
L8 0 S L1 AND L5

FILE 'IMOBILITY, AGRICOLA, AQUASCI, BIOTECHNO, COMPENDEX, COMPUAB, CONF,
CONFSCI, ELCOM, EVENTLINE, HEALSAFE, IMSDRUGCONF, ISMEC, LIFESCI, OCEAN,
MEDICONF, PASCAL, PAPERCHEM2, POLLUAB, SOLIDSTATE' ENTERED AT 17:00:36 ON
28 FEB 2002

L9 0 S L1 AND L5

d 16 1 ti abs ibib

L6 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2002 ACS
TI Autogenous Translational Inhibition of Core Protein: Implication for Switch from Translation to RNA Replication in Hepatitis C Virus
AB Pos.-stranded viruses use the genomic RNA as a common template for translation and RNA replication which proceed in inverse direction; a certain regulatory mechanism for translation control is probably required to coordinate these two antagonistic processes. Hepatitis C virus (HCV) core protein is a good candidate that might play a role in such a regulation. In this study, we further investigated whether HCV core protein modulates internal ribosome entry site (IRES)-directed translation. The inclusion of the core-coding sequence significantly suppressed translation initiated by **HCV IRES** in monocistronic and bicistronic reporter systems. The region mainly responsible for this inhibition was mapped to nt 441-473 of the core-coding sequence. This suppression was eliminated by frameshift mutations introduced into this region, suggesting that it is the core protein expressed in *cis*, rather than the core-coding nucleotide sequence that neg. modulates the efficiency of **HCV IRES**-dependent translation. Furthermore, the core protein provided in *trans* also specifically decreased the IRES activity in directing cap-independent translation both in transfected cells and in cell-free translation study. Consistently, a gel mobility shift assay showed a specific interaction between the core protein and **HCV IRES**-contg. RNA transcript. These findings suggest that HCV core protein may down-regulate the cap-independent translation as a regulatory mechanism required for initiation of transcription. (c) 2002 Academic Press.

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